

HIGH MAGNETIC ANISOTROPY HARD MAGNETIC BIAS ELEMENT

ABSTRACT

A magnetoresistive sensor having an MR stack biased by high anisotropy hard bias elements thereby reducing distortion in sensor operation and improving head to head operational values. The high anisotropy hard bias elements are formed from a hard magnetic material deposited in a thin film having a substantially axial preferred direction of magnetic anisotropy prior to application of a setting field. The magnetic anisotropy in the hard magnetic material is formed by oblique deposition in a direction approximately normal to the preferred direction of anisotropy in the resulting hard bias element.